



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2394/1  
 Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Gravel Link

### 1.3. Property details

Property: LOT 4964 ON PLAN 224697 (House No. 503 ASHWORTH DALIAK 6302)  
 LOT 4964 ON PLAN 224697 (House No. 503 ASHWORTH DALIAK 6302)  
 Local Government Area: Shire Of York  
 Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2		Mechanical Removal	Extractive Industry

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Mattiske Vegetation Complex:</p> <p>Coolakin (CK) - Woodland of Eucalyptus wandoo with mixtures of Eucalyptus patens, Eucalyptus marginata subsp. thalassica and Corymbia calophylla on the valley slopes in arid and perarid zones.</p> <p>Yalanbee (Y6) - Woodland of Eucalyptus wandoo-Eucalyptus accedens, less consistently open forest of Eucalyptus marginata fs24 subsp. thalassica-Corymbia calophylla on lateritic uplands and breakaway landscapes in arid and perarid zones.</p>	<p>The proposal is to clear 2 hectares of native vegetation for the purpose of gravel extraction.</p> <p>The vegetation under application comprises individual Eucalyptus wandoo and Eucalyptus spp. over a sparse understorey comprising Acacia pulchella, Xanthorrhoea preissii, Allocasuarina spp. Dryandra spp. and large expanses of bare gravel. The vegetation under application is in completely degraded condition.</p>	<p>Completely Degraded: No longer intact; completely/almost completely without native species (Kelghery 1994)</p>	<p>Vegetation clearing description based on DEC site visit conducted on 28/03/2008.</p>

Beard Vegetation Association:  
 4 - Medium woodland; marri & wandoo

(Shepherd 2006)

## 3. Assessment of application against clearing principles

### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

**Comments** **Proposal is not likely to be at variance to this Principle**  
 The vegetation under application is sparse and comprises individual Eucalyptus trees and shrubs, with large expanses of bare gravel and is considered to be in completely degraded condition. During the DEC site visit, vegetation in the adjacent Crown Reserve (id.26024) was observed in good condition.

Given the completely degraded condition and the low species diversity of the vegetation under application, it is

not considered likely to comprise a high level of biodiversity.

Methodology DEC Site visit - 28/03/2008

**(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.**

**Comments Proposal is not likely to be at variance to this Principle**

Within the local area (10km radius) there have been six recorded occurrences of significant fauna including the following:

- Crested Shrike-tit south-western spp. (*Falculmculus frontatus leucogaster*, P4)
- Shield-backed Trapdoor Spider (*Idiosoma nigrum*, VU)
- Water-rat (*Hydromys chrysogaster*, P4)
- Western Brush Wallaby (*Macropus irma*, P4)

The Water Rat occupies habitat in the vicinity of permanent water, with the closest recorded sighting of this species approximately 6.5km southeast of the applied area near the Avon River. Given the absence of wetland vegetation in the area under application, it is not considered likely to provide suitable habitat for the Water Rat.

The Crested Shrike-tit inhabits Eucalyptus woodlands (Garnett & Crowley 2000) and has been recorded within Wambyn Nature Reserve which is located approximately 5.8km south west of the applied area. Given the completely degraded condition of the vegetation under application, it is not considered to provide significant habitat for the identified bird species.

The area under application is located within the distribution range of the Carnaby's Black-Cockatoo (*Calyptorhynchus latirostris*) (EPBC Act Endangered), which breed in the wheatbelt, nesting in large hollows of Eucalyptus wandoo and other Eucalyptus species (Burbidge 2004). Given the sparse vegetation under application and that no hollows were observed in the trees during the DEC site visit, the vegetation is not considered likely to provide suitable nesting habitat for the Carnaby's Black-cockatoo, or other species that utilise hollows.

The only recorded sighting of the Shield-backed Trapdoor spider occurred in 1971, approximately 5.9km east of the applied area, with no further sightings of this species recorded within the local area. Although Trapdoor spiders may be suited to degraded areas, given the completely degraded condition of the vegetation under application and lack of any further spider sightings within the local area, it is not considered likely that the vegetation within the applied area would provide significant habitat for the identified spider species.

The vegetation under application is limited to 2 hectares and is in a completely degraded condition. There is a lack of understorey within the area under application which would limit the habitat potential for ground dwelling fauna species, including the Quenda, Numbat and Western Brush Wallaby.

With the understorey being predominantly absent from the area under application, it is not considered likely to provide significant habitat for ground dwelling fauna, especially when compared to the vegetation in the adjoining Crown Reserve that is in good or better condition and is much more likely to provide a broader range of habitat for local fauna species.

Methodology DEC Site visit - 28/03/2008  
Burbidge (2004)  
Garnett and Crowley (2000)  
GIS Databases:  
SAC BIO datasets - accessed on 27/03/08

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments Proposal is not likely to be at variance to this Principle**

Within the local area (10km radius) there are two recorded populations of Declared Rare Flora (DRF) the closest of which are:

- *Tetraria australiensis*
- *Thomasia montana*

Of the identified DRF species, *T. montana* is located approximately 2km to the south of the area under application and is generally found on rocky granite outcrops and on the slopes of lateritic hills, in gravely loamy soils (Western Australian Herbarium, 1998). Given that *T. montana* is found within the same vegetation complex, but in a different soil type to the area under application, it is not considered likely to provide suitable habitat for the identified DRF species.

*T. australiensis* is located approximately 6.6km south west of the applied area and is generally associated with "low open marri (*Corymbia calophylla*) woodland, over low shrubs and herbs" (Brown et al 1998). According to



Brown (et al 1998) this species is now restricted east of Mundijong on the Swan Coastal Plain.

There are also six known populations of Priority flora within a 10km radius of the local area, the closest being *Asterolasia grandiflora* (P4) which is located approximately 670 metres south west of the area under application. *A. grandiflora* is found within the same vegetation complex as the southern portion of the area under application, but in a different soil type to the applied area.

Given that the vegetation under application is completely degraded and is not likely to include habitat suitable for DRF or Priority flora in the local area, it is not considered likely that the vegetation under application includes, or is necessary for the continued existence, of rare flora.

**Methodology** DEC Site visit - 28/03/208  
Brown et al (1998)  
Western Australian Herbarium (1998-)  
GIS Databases:  
Pre-European Vegetation - DA 01/01  
Soils, Statewide - DA 01/01  
SAC BIO datasets - accessed on 27/03/08  
Western Australian Herbarium (1998)

**(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.**

**Comments Proposal is not likely to be at variance to this Principle**

There are no known occurrences of Threatened Ecological Communities (TEC) within a 10km radius of the area under application. The closest TEC is located approximately 42km southeast of the applied area and is associated with a perched wetland with extensive stands of *Casuarina obesa* and *Melaleuca strobophylla*.

The nearest recorded Ecological Communities, being a Priority Ecological Community (PEC) is located approximately 7.6km south-east of the area under application. This PEC has been identified as being Deep pools of the Avon Botanical District.

Given that the vegetation under application comprises mainly individual trees and shrubs associated with ironstone gravel and sandy soils, and given the distance to the nearest TEC and PEC, it is not considered likely that the vegetation under application comprises, or is necessary for the maintenance of, a TEC.

**Methodology** DEC Site visit - 28/03/208  
Pre-European Vegetation - DA 01/01  
Soils, Statewide - DA 11/99  
Western Australian Herbarium (1998)  
GIS Databases:  
SAC BIO datasets - accessed 27/03/08

**(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.**

**Comments Proposal is not likely to be at variance to this Principle**

The area under application is located within the Shire of York, within which there is 30.8% of pre-European extent remaining; and the local area (~10km radius) has approximately 22% of pre-European vegetation remaining. The vegetation under application is also within the Jarrah Forest IBRA Region of which there is 53.8% of pre-European vegetation remaining (EPA 2006).

Mattiske (CALM 1998) defines the vegetation under application as vegetation Complex Coolakin and Complex Yalanbee of which there is 42.9% and 51.4% respectively of pre-European extent remaining. The vegetation under application is also described as Beard vegetation association 4, of which there is 23.5% of pre-European extent remaining (Shepherd 2006).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Commonwealth of Australia, 2001).

Although the vegetation association 4 (Shepherd 2006) has a representation below the recommended minimum 30% of pre-European extent remaining, given the vegetation under application is completely degraded and limited to individual trees and shrubs, it is not considered likely to be representative of the identified vegetation association. It is therefore not considered likely that the vegetation under application is significant as a remnant in an area that has been extensively cleared.

Pre-European area (ha) Current extent (ha)  
% in reserves/DEC- managed land

Remaining %

IBRA Bioregion - Jarrah	4,505,674	2,426,079	53.8%**	39.2%
LGA YORK	214,963	66,264	30.8%*	
Local Area (~10km radius)	~31,400	~6,900	~22%	
Mattiske vegetation complex				
Coolakin (CK)	1,338,992	573,908	42.9%	
Yalanbee (Y6)	1,583,884	814,609	51.4%	
Beard vegetation associations				
4				
1,247,834				
292,993				
23.5%**				
14.8.%				
* (Shepherd et al. 2001)				
** (Shepherd 2006)				
*** (EPA, 2006)				

**Methodology** Commonwealth of Australia (2001)  
EPA (2006)  
Heddle et al. (1980)  
Shepherd (2006)  
GIS Databases:  
Heddle Vegetation Complexes  
NLWRA, Current Extent of Native Vegetation  
Pre-European Vegetation

**(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**Comments Proposal is not likely to be at variance to this Principle**

There are no wetlands recorded within a 10km radius of the area under application. The closest watercourses are the Avon River and Six Mile Brook which are respectively located approximately 6km east and 1.7km west of the area under application. In addition, an un-named, minor non-perennial watercourse is located approximately 46 metres west of the applied, in Crown Reserve (id. 26024).

Given the distance to the nearest watercourse, and that no wetland dependent vegetation was observed during the site visit, the vegetation under application is not considered likely to include vegetation growing in, or in association with, an environment associated with a watercourse or wetland.

**Methodology** DEC Site visit 28/03/2008  
GIS Databases:  
Geomorphic Wetlands (Classification), Swan Coastal Plain  
Hydrography, linear (hierarchy)

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposal may be at variance to this Principle**

Soils within the area under application are described as ironstone gravels with sandy and earthy matrices (Northcote et al, 1960) which generally have a low risk of land degradation including wind erosion and water logging (State of Western Australia 2005). The area under application is also associated with a nil to low risk of salinity and a nil risk of acid sulphate soils.

Although the area under application is generally associated with a nil to low risk of salinity, salinity mapping has identified pockets of high salinity within the local area, in particular Six Mile Brook, which is located approximately 1.7km west of the applied area. However, given the distance to the identified brook and given that the area under application is completely degraded, it is not considered likely that the removal of individual trees and shrubs within the applied area would significantly impact salinity in the local or regional context.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be water erosion. During the DEC site visit, a deeply incised erosion gully was observed transecting Lot 236 in a north-south direction which is located approximately 250 metres east of the area under application. Hydrographical mapping indicates the erosion gully appears to be associated with a minor non-perennial watercourse. In addition, aerial imagery shows runoff rills emanating from the remnant strip of vegetation located immediately adjacent to the eastern side of the area under application.

Given that the area under application is located in the upper slopes in the landscape, at an elevation of between 340-350 metres, the proposed clearing may result in an increase in surface water runoff causing erosion gullies and rills.



It is considered that the proposed clearing may cause water erosion resulting in appreciable land degradation and therefore may be at variance to this Principle.

**Methodology** DEC Site visit 28/03/2008  
Northcote et al (1960)  
State of Western Australia (2005)  
GIS Databases:  
Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC  
Salinity Risk LM 25m - DOLA 00  
Soils, Statewide - DA 11/99  
Topographic Contours, Statewide - DOLA 12/09/02  
Groundwater Salinity, Statewide

**(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.**

**Comments Proposal is not likely to be at variance to this Principle**

There are two areas reserved for conservation purposes within a 10km radius of the area under application, the closest being Wambyn Nature Reserve which is located approximately 5.7km south west of the applied area and St. Ronan's Nature Reserve (also listed on the Register of National Trust) which is located approximately 9.6km to the west. In addition, Wandoo National Park is located approximately 10.3km south west of the applied area.

The area under application is situated in a landscape which has been extensively cleared for agriculture and has been isolated from local conservation reserves, however, it is not considered likely to provide a corridor for movement of fauna to these reserves.

The Shire of York require a 20m excavation buffer from neighbouring properties of the area under application. Aerial mapping shows the vegetation on the western side of the area applied area, adjacent to Crown Reserve 26024, forms a vegetated corridor through neighbouring property to a large 50ha remnant (privately owned) which has the potential to provide a corridor of movement for fauna.

However, given the distance and the lack of connectivity to local conservation reserves, it is not considered likely that the proposed clearing would have a direct or indirect impact on the environmental values of any nearby conservation reserve.

**Methodology** DEC Site visit 28/03/2008  
GIS Databases:  
CALM Managed Lands and Waters  
Register of National Estate

**(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.**

**Comments Proposal may be at variance to this Principle**

The nearest watercourses are Six Mile Brook and the Avon River which are respectively located approximately 1.7km west and 6km east of the area under application. The applied area is situated within the Avon River Management Area, but is not located within a Public Drinking Water Source Area.

The area under application has a nil to low risk of salinity and a nil to low risk of acid sulphate soils. Given that there is a low to nil risk of salinity and acid sulphate soils, it is not considered likely that the proposed clearing would result in the deterioration in the quality of underground water.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be water erosion. Given that the area of application is located on the upper slopes in the landscape and that erosion rills and gully were observed outside the applied area within Lot 236, it is considered that the proposed clearing may cause water erosion resulting in the deterioration in surface water quality.

It is therefore considered that the proposed clearing may be at variance to this Principle.

**Methodology** GIS Databases:  
Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC  
Hydrographic Catchments - Catchments - DOW  
Hydrography, linear (hierarchy) - DOW  
Public Drinking Water Source Areas (PDWSAs) - DOW  
Salinity Mapping LM 25 - DOLA 00  
Groundwater Salinity, Statewide



**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

**Comments Proposal is not likely to be at variance to this Principle**

The area under application is located approximately 1.7km east of Six Mile Brook at an elevation of between 340-350 metres. Given the applied area is limited to 2ha of completely degraded vegetation, it is not considered likely that the proposed removal of vegetation would impact on peak flood height or duration.

**Methodology** DEC Site visit - 28/03/208  
GIS Databases:  
Hydrography, linear (hierarchy) - DOW  
Topographic Contours, Statewide

**Planning instrument, Native Title, Previous EPA decision or other matter.**

**Comments**

Lot 236 on Plan 57830 (formerly Lot 4964 on Plan 224697) is part of a Native Title Claim however, since it is privately owned the Native Title has been extinguished under the Native Title Act. Therefore the clearing is considered to be a secondary approval and not a future act under the Native Title Act 1993.

The area under application is located within Lot 236 on Plan 57830 (formerly Lot 4964 on Plan 224697). The property owners Brian and Julie Ashworth have given permission for the Applicant (Gravel Link) to clear vegetation on the identified property for the purpose of gravel extraction (TRIM ref: DOC47422).

The Shire of York has advised that planning consent has been granted to the landowner (B. Ashworth) for gravel extraction to be conducted on Lot 236 on Plan 57830 under the zoning of General Agriculture. However, the Shire advises that Gravel Link does not have an Extractive Industry Licence and is waiting on the Applicant (Gravel Link) to provide further supporting information in relation to a Traffic Management Plan, Dust Plan and Noise Plan. Furthermore, the Shire of York advises that a 20 metre excavation buffer zone is required adjacent to neighbouring properties and that the Shire would not support clearing within this 20 metre buffer. (TRIM ref: DOC 50568).

In a submission an objection to the proposed clearing application was lodged, stating that if a Clearing Permit were to be granted, recommended that the areas of remnant vegetation be fenced and the area be revegetated by direct seeding from locally sourced seeds.

In a submission an objection to the proposed clearing application was lodged, raising concerns that the clearing of vegetation could exacerbate existing salinity problems for neighbouring properties in the local area.

**Methodology** Native Title Claims - DIA

**4. Assessor's comments**

Purpose	Method	Applied area (ha)/ trees	Comment
Extractive Industry	Mechanical Removal	2	The assessable criteria have been addressed and the proposal may be at variance to Principles (g) and (i).

**5. References**

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Burbidge, A. (2004) Threatened Animals of Western Australia, Department of Conservation and Land Management, Perth, Western Australia.
- Commonwealth of Australia (2001) National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.
- EPA (2006) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.
- Garnett, S.T. and Crowley G.M. (2000) The Action Plan for Australian Birds, Environment Australia, Canberra.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P. (2006). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in

Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

Site Visit 28/03/2008, Department of Environment and Conservation (DEC), Western Australia. TRIM ref DOC51697

Submission, Direct Interest Submission, 4 April 2008, TRIM DOC49617.

Submission, Direct Interest Submission, 11 April 2008, TRIM DOC50568.

Submission, Direct Interest Submission, 4 April 2008, TRIM DOC49624.

Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.calm.wa.gov.au/> (Accessed xx/xx/xxxx).

## 6. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)

